

State of California
The Resources Agency
DEPARTMENT OF FISH AND GAME
1416 Ninth Street
Sacramento, California 95814

Inland Fisheries - Informational Leaflet No. 31

REGULATIONS GOVERNING TAKE, SALE OR
TRANSPORT OF CRAYFISH FOR COMMERCIAL PURPOSES^{1/}

GENERAL

All persons who take crayfish for commercial purposes from the wild must abide by laws passed by the Legislature, which are found in the Fish and Game Code, and by regulations adopted by the Fish and Game Commission, which are found in Title 14 of the California Code of Regulations (CCR). Pertinent laws are described in this leaflet and pertinent regulations presented verbatim.

REGULATIONS GOVERNING COMMERCIAL UTILIZATION OF CRAYFISH

The Fish and Game Commission has authority to regulate the take of crayfish for commercial purposes (Section 8491 of the Fish and Game Code). Traps used to take crayfish may not exceed 3 feet in greatest dimension, and any other species taken in the traps must be returned to the water immediately (Section 9004 of the Fish and Game Code). Almost all remaining pertinent regulations governing commercial crayfish fishing for bait, human consumption, and for scientific and educational purposes are found in Section 116 of Title 14, CCR (attached). Read these regulations carefully before you apply for a license and a permit.

Crayfish for Bait

A Live Freshwater Bait License is required for all persons who, for profit, capture, possess, transport, or sell live freshwater fish, freshwater clams, or crayfish for bait. Laws and regulations pertaining to the capture, possession, and sale of live freshwater bait, are found in Inland Fisheries Informational Leaflet No. 7. This leaflet, together with an application for a Live Freshwater Bait Fish License, are available at the Department's License and Revenue Branch office or any of the five regional offices listed on the following page. New or renewal applications, together with the permit fee, should be mailed to the License and Revenue Branch, 3211 S Street, Sacramento, California 95816.

^{1/} Prepared by Inland Fisheries Division, November 1996; updated by Dennis P. Lee. Fisheries Programs Branch, August 2002.

Fish and Game Offices (and Counties Represented)

NORTHERN CALIFORNIA & NORTH COAST REGION		SACRAMENTO VALLEY & CENTRAL SIERRA REGION		CENTRAL COAST REGION	
601 Locust Street Redding, CA 96001 (530) 225-2300		1701 Nimbus Road Rancho Cordova, CA 95670 (916) 358-2900		7329 Silverado Road Napa, CA 94558 (707) 944-5500	
Del Norte Humboldt Lassen Modoc	Shasta Siskiyou Tehama Trinity	Alpine Amador Butte Calaveras	Plumas Sacramento San Joaquin Sierra	Alameda Contra Costa Lake	San Benito San Francisco San Luis Obispo
SAN JOAQUIN VALLEY & SOUTHERN SIERRA REGION		Colusa El Dorado Glenn Nevada Placer	Solano Sutter Yolo Yuba	Marin Mendocino Monterey Napa	San Mateo Santa Clara Santa Cruz Sonoma
1234 East Shaw Avenue Fresno, CA 93710 (559) 243-4005		SOUTH COAST REGION		EASTERN SIERRA & INLAND DESERTS REGION	
Fresno Kern Kings Madera Mariposa	Merced Stanislaus Tulare Tuolumne			4775 Bird Farm Road Chino Hills, CA 91709 (909) 597-9823	
LICENSE AND REVENUE BRANCH		Los Angeles Orange San Diego	Santa Barbara Ventura	Imperial Inyo Mono	Riverside San Bernardino
3211 S Street Sacramento, CA 95816 (916) 227-2271					

**FISHERIES PROGRAMS BRANCH
1416 Ninth Street
Sacramento, CA 95814
(916) 445-3417**

Crayfish for Human Consumption or for
Scientific and Educational Purposes

Anyone taking crayfish for profit for human consumption or for scientific and educational purposes must have a commercial fishing license. If a boat is used during the fishing operation, a commercial fishing vessel registration is also required. Licenses and registrations may be obtained at the License and Revenue Branch or at the Regional offices listed above.

Crayfish Permit

A crayfish permit is required of all persons who for profit, take crayfish for bait, human consumption, or for scientific and educational purposes. Applications for new permits and renewals may be obtained from one of the offices listed above.

Commission Regulations

The Fish and Game Commission regulations in Title 14, CCR, governing the take, sale, or transport of crayfish for commercial purposes, are as follows:

Section 116. Crayfish.

Freshwater crayfish may not be taken for commercial purposes except in accordance with the following regulations:

(a) Licenses and Permits Required.

(1) Crayfish may not be taken for commercial purposes except under a revocable, non-transferable, numbered permit issued by the department. See subsection 699(b) of these regulations for the fee for this permit. (**NOTE:** This fee shall be charged effective April 1, 1992.) Persons taking crayfish for a fee under the authority of a scientific collector's permit do not need to have this permit.

(2) Except for those taking crayfish for a fee under the authority of a scientific collector's permit, every person who takes, assists in taking, possesses, or transports crayfish while on any boat or vessel, or who uses or operates or assists in using or operating any boat, trap, or other appliance to take crayfish, must have a valid crayfish permit issued to him and must be in possession of said permit while engaged in any of such activities.

(3) Crayfish may not be taken for commercial purposes for human consumption except under the authority of a commercial fishing license. Commercial fishermen taking crayfish shall also comply with requirements of the Fish and Game Code relating to commercial fishing vessel registration and other applicable commercial laws.

(4) Crayfish may not be taken as live bait for commercial purposes except under the authority of a live freshwater bait fish license.

(5) Crayfish permits shall contain all applicable regulations and shall be conditioned on compliance with such regulations and the applicable provisions of law.

(6) The application for such a permit shall contain the statement, signed by the applicant, that he has read, understands, and agrees to be bound by all the terms of the permit.

(7) Such permits shall be issued annually by the department for the period from April 1 to

March 31 of the following year, or, if issued after the beginning of such terms, for the remainder thereof. A crayfish permit may be revoked or suspended, for a period not to exceed one year, by the commission for violation of any of the terms of the permit or provisions of law relating to the taking of crayfish by the permittee or his agent, servant, employee, or person acting under his direction and control. However, any person who has had such a permit revoked may be required by the commission to appear before it and no new permit may be issued to such person unless the commission finds that such issuance will be in the best interests of the crayfish resource.

(8) The permit number of the person owning or in command of any boat used to take crayfish shall be visibly displayed on both sides of the boat in 10-inch black numbers, one-inch wide, on a white background.

(b) Records. The department may require persons taking crayfish for commercial purposes to keep an accurate, complete record of daily fishing operations on forms provided by the department. If so required, the original copy of the completed forms, recording one month's fishing activity, shall be mailed to the department by the fifth day of the following month.

(c) Fishing Area and Season.

(1) Area: Crayfish may be taken for commercial purposes only in the following counties or portions thereof except that no crayfish shall be taken in any lake or reservoir within the county:

(A) Tehama, Glenn, Butte, Colusa, Sutter, Yuba, Yolo, Sacramento, Solano, Contra Costa, San Joaquin, Stanislaus, Merced, Kings, Santa Barbara, Ventura, Los Angeles, Orange, San Bernardino, Riverside, San Diego, and Imperial counties.

(B) Nevada, Placer, El Dorado, Amador, Calaveras, Tuolumne, and Mariposa counties west of Highway 49.

(C) Madera, Fresno, Tulare, and Kern counties west of the westerly boundaries of the National Park or National Forest lands.

(2) Open Season: All year.

(d) Restricted Sale.

(1) Crayfish taken under the authority of a commercial license and a crayfish permit may be used only for human consumption and may not be sold, purchased, or traded for any other use, except that they may be sold to a registered aquaculturist.

(2) Crayfish taken under the authority of a live bait fish license shall be used only for bait purposes and shall not be sold, purchased, or used for any other purpose.

(e) Size Limit.

(1) No live crayfish of the genus *Pacifastacus* less than three and five-eighths inches (92 mm) in length from tip of nose (acumen) to tip of tail (telson), measured in a straight line ventral side up, may be taken commercially, except an allowable percentage of unacceptable (dead or undersized) *Pacifastacus* in any load or lot shall not be more than 10% by number.

(2) With the exception of the 10% allowable unacceptable crayfish, all other undersized *Pacifastacus* shall be returned unharmed to the waters from which taken. Such crayfish shall be sorted and returned immediately following processing of any trap or trap line before pulling additional traps or before returning to any dock or landing.

(3) The processing plants may not possess any cooked crayfish of the genus *Pacifastacus* which are less than three and one-half inches (89 mm) in length from the tip of nose (acumen) to tip of tail (telson), measured in a straight line ventral side up, except an allowable percentage of undersized *Pacifastacus* shall not be more than 5% by number of the total crayfish received at the processing plant during the day of processing.

(4) Any undersized *Pacifastacus* taken to the processing plant shall be returned to the water from which they were taken within twenty-four hours from the time of arrival at the processing plant. Either the processor or a commercial fisherman shall return the crayfish. Such crayfish shall be maintained alive and in good condition until they are released.

(5) There is no minimum size limit on crayfish of the genus *Procambarus* or the genus *Orconectes*.

(6) To determine the percentage of unacceptable crayfish of the genus *Pacifastacus* which are either dead and/or less than the minimum size limit fixed by this section, samples shall be taken from various portions of the load or lot and shall be measured and counted. The mean of the combined counts of all samples taken shall be used to determine the percentage of unacceptable *Pacifastacus* in the load or lot. Samples shall be taken in containers of not less than one gallon size approximately full of *Pacifastacus*. At least three such samples shall be taken from any load or lot.

(f) Female Crayfish. Any female crayfish carrying eggs (berried crayfish) or young shall be returned unharmed to the water at the time the crayfish are sorted.

(g) Methods of Take. Crayfish may be taken only by hand, hook and line, dip net not over six feet in greatest diameter or with a trap not over three feet in greatest dimension.

(h) Trap Identification. All crayfish traps shall be permanently tagged with a visible, metal tag bearing the crayfish permit number of the fisherman. Any person pulling or raising crayfish traps bearing a permit number other than his own must have in his possession written permission to pull the traps from the person who holds the crayfish permit number identifying such traps.

(i) Buoys. Each person taking crayfish for commercial purposes shall designate a trapping area with at least two buoys, one at either end of a trap line; however, the buoys do not have to be attached to the trap line. Such buoys shall be spaced not less than 200 feet, nor more than 1,200 feet apart. The upstream buoy shall be painted red and the downstream buoy white. When single traps are employed such traps shall be individually buoyed with a minimum spacing of 200 feet between traps. Buoys for single traps shall be painted yellow. Each buoy shall bear the permit number of the fisherman in a color that contrasts with that of the buoy. The permit number on the buoy shall be at least 1 1/2 inches in height and all markings shall be at least one-quarter inch in width.

(j) Containers. Any container used to hold or transport live crayfish shall be vented at the bottom. The depth of crayfish in such container shall not exceed 13 inches.

(k) All crayfish traps must be raised and processed at least once every 72 hours. Traps not processed within this time limit shall be considered abandoned and shall be subject to seizure by department personnel.

(l) Scientific and Educational Use.

(1) Each person who collects crayfish for a fee for scientific and educational purposes shall have a commercial fishing license, and each boat used for this purpose shall be registered as a

commercial fishing vessel. However, if a fisherman is collecting crayfish of the genus *Pacifastacus* he must also have a scientific collection permit (see Section 650, Title 14, CCR, for requirements).

(2) A qualified scientific supply house shall issue a market order to each fisherman before the fisherman collects crayfish. Each market order shall specify the collecting locality, and the duration of that market order. Each fisherman shall have a market order in his possession when collecting crayfish.

(3) The fishing area and season fixed in subsection (c) and the minimum size limit fixed in subsection (e) of this section shall also apply to the fishermen collecting crayfish for a fee for scientific and educational purposes.

NOTE:

Authority cited: Section 8491, Fish and Game Code. Reference: Sections 8491 and 115101, Fish and Game Code.

IMPORTATION AND TRANSPORTATION RESTRICTIONS

Importation of any live crayfish into California requires a permit issued by the Department. Live importation of exotic species of crayfish also requires authorization of the California Fish and Game Commission. More information about importation laws and regulations as well as applications for the required permit is found in Inland Fisheries Informational Leaflet No. 36. This leaflet is available at any of the Fish and Game offices listed on page 2.

Section 671 of Title 14, CCR, prohibits the importation or release alive in California of any species of crayfish of the family Cambaridae, except *Procambarus clarkii* and *Orconectes virilis*. Crayfish can be agricultural pests because they burrow into banks and levees and eat young rice plants.

Procambarus and *Orconectes* prefer sloughs, canals, and ditches where the water is relatively warm and vegetation is plentiful. The highest concentrations of these two genera are found in the irrigation systems and rice fields of the Central Valley and in southern California. Each fall and winter most of these waterways are drained and huge quantities of crayfish are lost. The Department encourages the use of the crayfish resource, but warns that fishermen must have the landowner's permission before trespassing on posted lands.

Virtually all of the crayfish entering the commercial crayfish fishery in the Delta and lower Sacramento River belong to the genus *Pacifastacus*. Only an occasional specimen of *Procambarus* has been found in the commercial catch. Unless notified by Department personnel otherwise, fishermen in this area should assume their catch is made up of *Pacifastacus* only.

CRAYFISH IDENTIFICATION

For commercial purposes, crayfish need only be identified to genus. Three genera are recognized in California: (1) *Pacifastacus*, (2) *Procambarus*, and (3) *Orconectes*. The distinguishing characteristics of these crayfish are illustrated in the attached figures.

CARING FOR THE CATCH

The category "unacceptable crayfish" includes both undersized and dead crayfish. The percentage of short crayfish in your catch can be minimized by careful sorting, but the percentage of dead crayfish in your catch is directly related to the treatment your crayfish receive after sorting. The key to keeping your catch alive until they are delivered to the processing plant is keeping them clean, cool, and moist.

Bait or mud, if allowed to remain on the crayfish, will decrease their survival; but the two biggest causes of crayfish mortality in the totes are heat and dryness. First, make sure your catch is not stacked any higher in the totes than 13 inches. Next, if the crayfish have not yet been rinsed off, throw several buckets of water over them, then place a wet burlap sack on top of them, cover your tote, and place in the shade. If you have additional traps to pull, occasionally throw a bucket of water over the crayfish already in the totes. If the days are extremely hot, try to pull your traps early in the morning. It is best to get your catch to the processor as soon as possible. If you have to hold your crayfish overnight, they should be iced down with about 1 to 2 inches of ice.

You worked hard to trap and sort your catch, don't lose crayfish to careless handling.

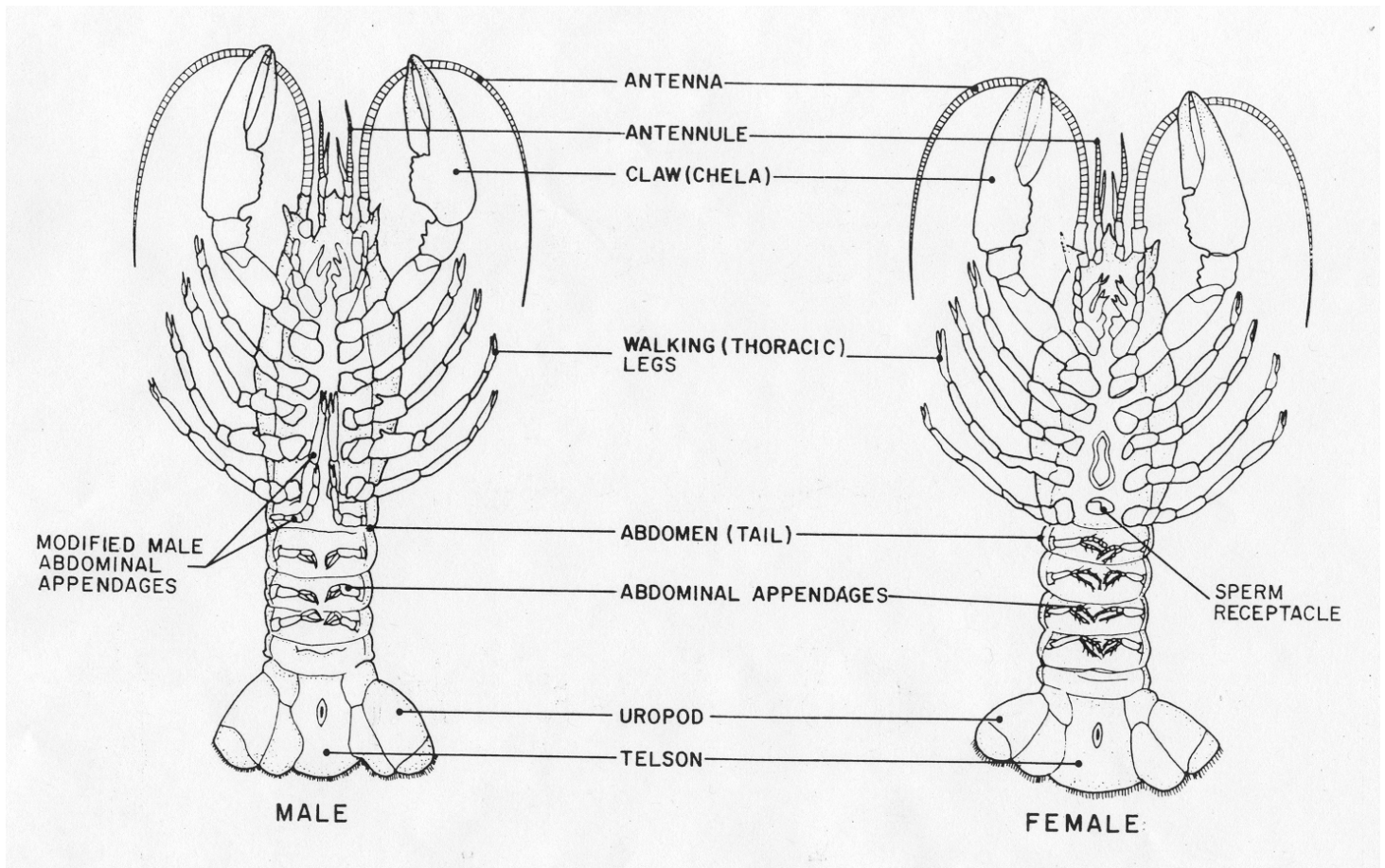


Figure 1. Ventral view of generalized male and female crayfish.

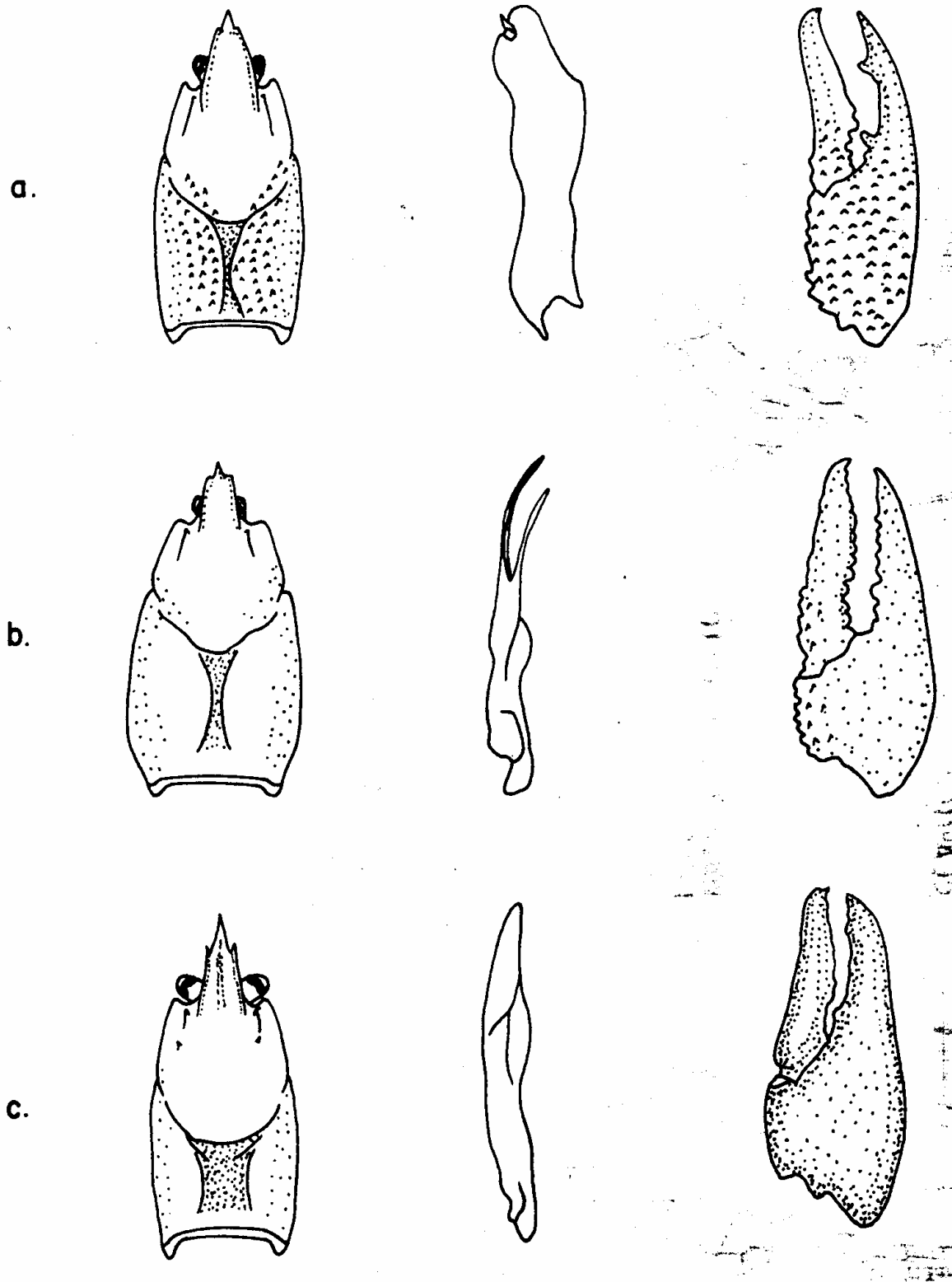


Figure 2. Dorsal view of carapace, male first abdominal appendage, and claw of
a. *Procambarus* sp., b. *Orconectes* sp., and c. *Pacifastacus*.

